

Llangyfelach Rural District Council.

ANNUAL REPORT

OF THE

MEDICAL OFFICER

ON THE

HEALTH & SANITARY CONDITION

OF THE

Llandilo-Talybont Division,

FOR THE YEAR 1896.

SWANSEA :

PRINTED AT THE "CAMBRIA DAILY LEADER" PRINTING WORKS.

1897.

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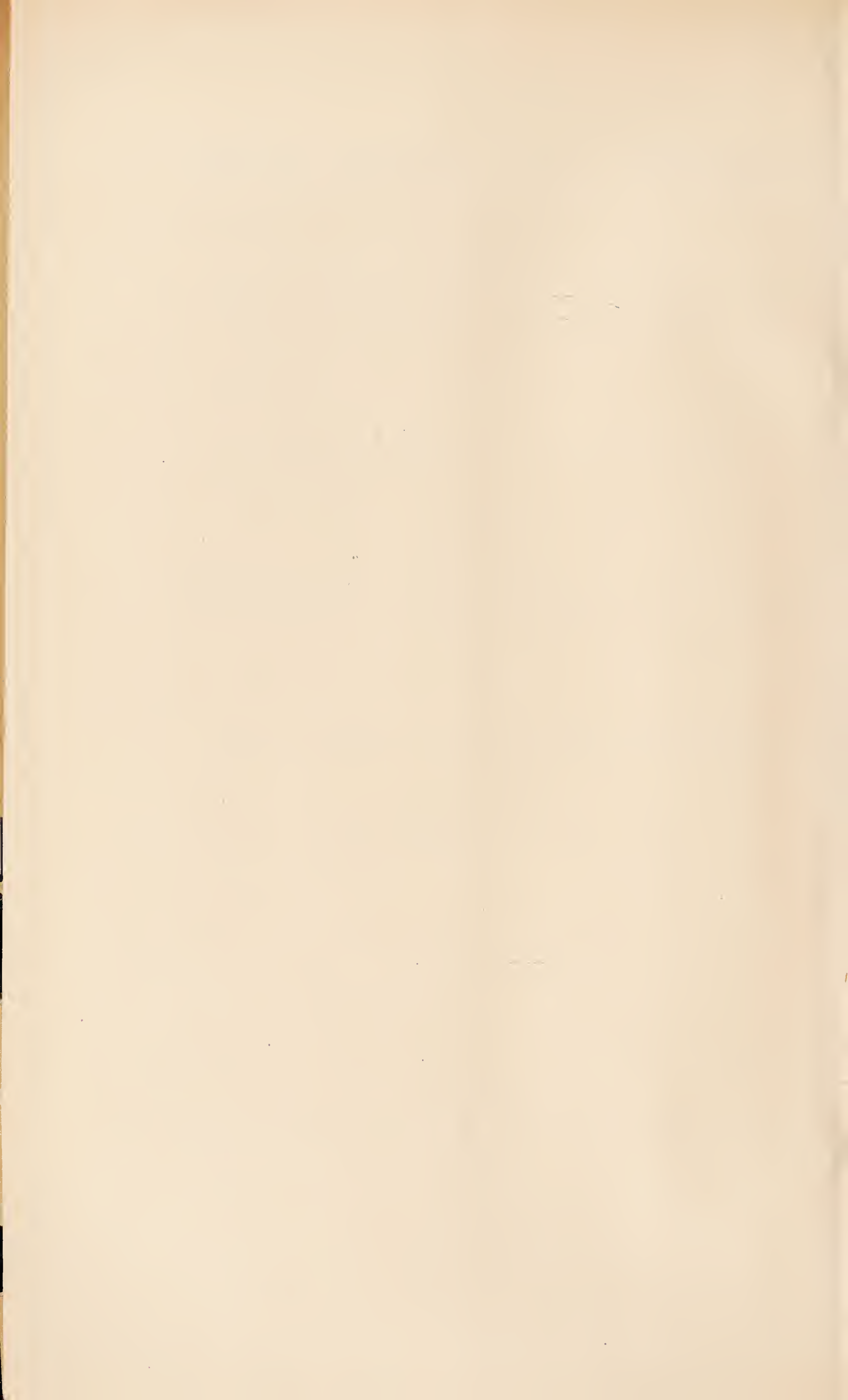
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THE RURAL DISTRICT COUNCIL OF LLANGYFELACH.

GENTLEMEN,

I beg to submit my Annual Report on the health and sanitary condition of the Llandilo-Talybont Division for the year ending 31st December, 1896.

In my two former reports I have given a tolerably comprehensive sanitary survey of this Division; and, as the conditions are little altered since the presentation of those reports, it would be useless for me to travel over the same ground again. I intend, therefore, in the present report, merely to deal with those portions of the history of the past year which are specially instructive, suggestive, or interesting; and to state very briefly what I consider the chief requirements of the district, referring you to my former reports for the grounds upon which my opinions are based.

POPULATION AND INDUSTRIES.

The industries are mainly coal-mining and tinplate-manufacture, and, owing to their seriously depressed state, I consider the increase of population to have been approximately the excess of births over deaths, viz., 386. Loss by emigration in some parts of the Division was compensated by immigration in others. The population, therefore, in the middle of the year, is estimated at 20,106.

BIRTHS.

The birth rate of this Division in 1896 was 32·8 per 1,000, which is 3·1 per 1,000 above the birth rate of England and Wales, but falls 5·4 per 1,000 below the average rate recorded in this Division during the 10 preceding years. The birth rate for England and Wales in 1896 was lower than that of any year on

record, except 1894. Of the 659 births registered in this Division in 1896, 320 were those of males and 339 those of females, being in the proportion of 944 males to 1,000 females; whilst in England and Wales, 1886-95, the proportion was 1,037 males to 1,000 females. As in former years, the proportion of illegitimate births—viz.: 21 per 1,000 registered births—bears very favourable comparison with the average rate of 42 per 1,000 recorded in England and Wales, 1886-95.



TABLE I.—Showing the Number of Births Registered in the year 1896,
and the Birth Rates since 1886.

Name of Locality.	Estimated Population on 30th June, 1896.	Total No. of Births.	No. of Males.	No. of Females.	Illegiti- mate.		Birth rate per 1,000 of Population.											
					Males.	Females.	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	Mean Rate. 1886-95.	1896
Parish of Llandilo-Talybont ..	5561	185	85	100	2	0	41.0	39.7	42.8	46.1	45.0	39.7	35.5	33.6	36.9	40.6	40.1	33.3
Parish of Penderry ..	3245	112	56	56	1	2	39.3	47.7	39.7	37.1	38.6	42.5	37.4	32.4	34.7	32.8	38.2	34.5
Swansea Higher ..	4581	132	62	70	0	0	41.7	39.3	41.7	36.5	44.5	41.6	40.9	47.7	32.5	35.1	40.2	28.8
Swansea Lower ..	2257	49	27	22	0	2	38.3	36.6	31.5	31.4	28.5	28.7	32.3	32.3	26.8	24.8	31.1	21.7
Loughor Borough ..	2198	96	50	46	3	1	31.2	32.8	40.9	31.7	44.1	40.2	36.5	40.7	40.6	36.4	37.5	43.7
Parish of Gowerton ..	2264	85	40	45	2	1	48.2	32.2	33.1	38.4	43.6	39.4	44.0	33.1	38.1	31.5	38.2	37.5
Llandilo-Talybont Division ..	20106	659	320	339	8	6	40.6	40.8	40.1	38.3	40.5	39.1	36.3	37.3	33.7	34.8	38.2	32.8
England and Wales ..							32.8	31.9	31.2	31.1	30.2	31.4	30.5	30.8	29.6	30.3	31.0	29.7

DEATHS.

The general death rate of this Division in 1896 was only 13·3 per 1,000, which compares very favourably with the rate of 15·3 per 1,000 recorded in the country districts of England and Wales, and is 4·2 per 1,000 below the divisional mean rate of the preceding 10 years. The death rate in England and Wales in 1896 was lower than that of any year on record, except 1894.

The zymotic death rate was 0·60 per 1,000, which is less than one-third of the mean rate recorded in the decennium 1886-95. I regret to state, however, that the death rate from typhoid fever was excessive, viz., 0·25 per 1,000.

The death rate from phthisis in 1896 was very satisfactory, being only 1·29 per 1,000.

The death rate of 2·88 per 1,000 from diseases of the respiratory system is also below the average.

The rate of infant mortality was low, being only 127 per 1,000 births registered, as compared with the mean rate of 143 recorded in the preceding decennium.

Of the total deaths in 1896, 84, or 31 per cent., occurred amongst children under one year of age, and 116, or 43 per cent., amongst children under five.

Of the 47 deaths which occurred at the age of 65 years or upwards, 35 occurred under the age of 75; 4 at the age of 75 and under 85; 4 at the age of 85 and under 90; whilst the remaining 4 were stated to have occurred at the ages of 92, 93, 97 and 102 respectively.

Inquests were held in 17 cases, or 6·3 per cent. of the total deaths, whilst in England and Wales the proportion was 6·2 per cent.

In only 0·8 per cent. of the deaths was the cause uncertified by Medical Practitioners, or by the Coroner, as compared with 2·2 per cent. in England and Wales.

The following were the monthly death rates during 1896:—
January, 15·8; February, 18·8; March, 16·4; April, 12·8; May,
14·1; June, 8·5; July, 12·3; August, 9·96; September, 8·5;
October, 10·5; November, 12·1; December, 19·9.

Death returns have been received from the Bridgend Lunatic Asylum, Carmarthen Lunatic Asylum, Swansea Workhouse, Llanelly Workhouse, Swansea General Hospital and Swansea Fever Hospital.

It may be well here to specify the causes of the 141 deaths, which are classified in Table A as due to "other diseases." The registered causes of death in those cases were as follows:—
diabetes mellitus, 1; cancer, 16; sarcoma, 1; cerebral tumour, 1; apoplexy, 8; general paralysis, 1; hemiplegia, 1; epilepsy, 2; syphilis, 3; old age, 9; premature birth, 1; congenital malformations, 3; marasmus, atrophy, inanition, or debility from birth, 18; tabes mesenterica, 5; meningitis (tubercular or otherwise), 10; convulsions, 27; croup, 1; laryngitis, 1; chronic emphysema, 1; aneurism of aorta, 1; cirrhosis of liver, 1; nephritis, 4; Bright's disease, 4; puerperal eclampsia, 3; post partum hæmorrhage, 1; peritonitis, 2; gastritis, 3; gastro-enteritis, 3; intestinal obstruction, 1; icterus neonatorum, 1; lymphadenoma, 1; rickets, 1; syncope, 2; gangrene, 1; suicide by drowning, 1; accidental drowning, 1.



TABLE II.—Showing the Number of Deaths Registered during the year 1896; the Mean Age at Death; and the Death Rates of the Sub-Districts since 1886.

Name of Area.	Mean Age at Death.			Death Rate per 1,000 of Population.														Mean Rate 1886-95	1896
	Estimated Population on June 30, 1896	Number of Deaths Regis- tered in 1896	M'ths		1886	1887	1888	1889	1890	1891	1892	1893	1894	1895					
			Years																
Parish of Llandilo } Talybont	5561	86	21	4	15.6	20.6	15.7	19.0	18.0	14.4	15.5	19.5	16.9	16.66	17.2	15.4			
Parish of Penderry.	3245.	41	31	5	17.9	21.2	18.9	18.4	20.2	18.2	15.2	17.5	18.1	15.3	18.1	12.6			
Swansea Higher ..	4581	52	28	6	17.8	23.4	18.7	17.3	21.1	17.8	14.7	19.6	16.3	16.2	18.3	11.3			
Swansea Lower ..	2257	22	42	0	17.7	15.0	10.8	21.7	15.7	19.0	13.0	17.5	15.4	8.1	15.4	9.7			
Loughor Borough...	2198	32	37	9	11.2	12.6	15.9	11.7	17.6	17.9	12.0	20.4	12.6	22.6	15.5	14.6			
Parish of Gowerton	2264	35	21	0	16.5	17.2	16.5	19.5	17.4	13.1	19.0	16.5	17.3	13.0	16.6	15.5			
Llandilo-Talytont } Division	20106	268	25	2	17.0	21.2	16.92	18.54	19.13	16.95	14.86	18.24	16.8	15.6	17.5	13.3			
Country Districts of England and Wales ..					18.0	17.2	16.6	16.4	17.4	18.5	18.1	17.4	15.6	17.0	17.2	15.3			
All England and Wales					19.5	19.1	18.1	18.2	19.5	20.2	19.0	19.2	16.6	18.7	18.8	17.1			

TABLE III.—Showing the Number of Deaths from each of the principal Zymotic Diseases in the Llandilo-Talybont Division in 1896 and the 10 years preceding.

	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896
Small Pox	0	0	0	0	0	0	0	0	0	0	0
Measles	8	34	0	1	16	6	2	23	1	1	1
Scarlet Fever	0	3	13	21	4	3	7	3	2	2	0
Diphtheria	0	0	3	1	2	1	3	3	2	1	0
Whooping Cough	5	8	0	9	0	1	6	7	10	1	4
Typhus Fever	0	0	0	0	0	0	0	0	0	0	0
Enteric or Typhoid Fever	6	5	4	4	1	3	2	0	2	4	5
Simple and ill-defined } Continued Fever }	0	0	0	0	0	0	0	0	0	0	0
Diarrhoea and Dysentery.	7	5	2	3	3	6	1	8	1	4	2
Total Deaths from the principal Zymotic Diseases	26	55	22	39	26	20	21	44	18	13	12
Death Rate from the principal Zymotic Diseases per 1,000 of population	1.86	3.74	1.46	2.52	2.14	1.48	1.54	2.99	1.20	0.66	0.60

TABLE IV.—Showing the Death Rates from each of the Principal Zymotic Diseases in 1896, and the Mean Annual Rates 1886-95.

Name of Disease.	Death Rate in 1896 per 1,000 of Population.							Mean Annual Death Rate 1886-95 per 1,000 of Population.									
	Parish of Llandilo-Talybont.	Parish of Penderry.	Swansea Higher.	Swansea Lower.	Loughor Borough.	Parish of Gwerton.	Llandilo-Talybont Division.	England and Wales.	Parish of Llandilo-Talybont.	Parish of Penderry.	Swansea Higher.	Swansea Lower.	Loughor Borough.	Parish of Gwerton.	Llandilo-Talybont Division.	England and Wales.	
Small Pox ..	—	—	—	—	—	—	—	0·02	—	—	—	—	—	—	—	0·017	
Measles ..	—	—	0·22	—	—	—	0·05	0·56	0·38	0·78	0·92	0·17	0·31	0·43	0·64	0·44	
Scarlet Fever ..	—	—	—	—	—	—	—	0·18	0·31	0·61	0·22	0·58	0·15	0·10	0·40	0·21	
Diphtheria ..	—	—	—	—	—	—	—	0·29	0·08	0·11	0·16	—	0·21	0·26	0·11	0·21	
Whooping Cough...	—	0·31	0·44	0·44	—	—	0·20	0·41	0·25	0·21	0·38	0·48	0·50	0·58	0·33	0·42	
Typhus Fever ..	—	—	—	—	—	—	—	0·17	—	—	—	—	—	—	—	0·005	
Enteric or Typhoid Fever ..	—	0·31	0·87	—	—	—	0·25		0·19	0·24	0·27	0·15	0·16	0·36	0·21	0·21	0·17
Simple & ill-defined Continued Fever	—	—	—	—	—	—	—		—	—	—	—	—	—	—	—	0·012
Diarrhoea and Dysentery ..	0·18	—	—	0·44	—	—	0·10	0·55	0·35	0·19	0·20	0·30	0·05	0·10	0·27	0·65	
TOTALS ..	0·18	0·62	1·53	0·81	—	—	0·60	2·18	1·56	2·14	2·15	1·68	1·38	1·83	1·96	2·14	

N.B.—A dash in the above Table indicates that no death had been recorded.

TABLE V.—Showing the number of Deaths from Phthisis during the year 1896, and the Death Rates from Phthisis since 1886.

Name of Locality.	No. of Deaths in 1896.	Death Rate per 1,000 of Population.												Mean Rate, 1886-95.	1896
		1886	1887	1888	1889	1890	1891	1892	1893	1894	1895				
Parish of Llandilo-Talybont	11	1.91	1.80	1.35	3.42	3.50	1.51	2.13	1.54	1.90	2.40	2.15	1.98		
Parish of Penderry ..	2	1.37	0.98	1.89	1.53	2.94	2.23	2.22	0.32	2.23	1.25	1.70	0.61		
Swansea Higher ..	5	0.70	1.84	2.62	1.11	3.33	1.46	1.45	1.87	1.59	1.55	1.75	1.09		
Swansea Lower ..	1	1.66	1.11	1.47	2.41	1.42	1.95	0.48	0.92	0.45	1.35	1.32	0.44		
Loughlor Borough ..	3	2.35	0.00	2.27	0.55	1.07	2.42	0.48	1.42	2.80	3.22	1.66	1.36		
Parish of Gowerton..	4	1.76	0.56	1.10	1.05	1.54	1.41	2.31	1.38	3.18	1.35	1.56	1.77		
Llandilo-Talybont ..	26	1.28	1.56	2.00	1.94	2.97	1.71	1.69	1.29	1.67	1.88	1.80	1.29		
England and Wales ..		1.74	1.62	1.57	1.57	1.68	1.60	1.47	1.47	1.385					

TABLE VI.—INFANT MORTALITY.

Name of Locality.	Deaths of Children under 1 year of age per 1,000 Registered Births.										
	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	Mean Rate, 1886-95.
Parish of Llandilo-Talybont ..	153	156	126	148	100	114	152	224	149	155	148
Parish of Penderry ..	105	150	143	165	142	114	138	200	165	229	155
Swansea Higher ..	97	221	126	173	108	111	106	151	202	164	146
Swansea Lower ..	144	60	31	138	133	169	89	128	84	73	105
Loughor Borough ..	38	105	97	105	120	145	117	174	92	203	120
Parish of Gowerton..	98	224	133	110	106	131	74	125	155	100	126
Llandilo-Talybont Division ..	119	170	119	160	115	119	125	180	160	161	143
England and Wales..	149	145	136	144	151	149	148	159	137	161	148

INFECTIOUS DISEASE (NOTIFICATION) ACT, 1889.

Under the provisions of the above Act the following cases were notified during 1896:—Scarlet fever, 38; membranous croup, 2; typhoid fever, 47; continued fever, 1; erysipelas, 1; total, 89. In addition, I was informed by the Medical Officer of Health for Swansea of the occurrence of the case of small-pox referred to in the next paragraph.

It may not be uninteresting to state here the cost of notification since the adoption of the above Act in 1889. Assuming, for convenience sake, that the fee for each case was paid in the same year as the notification was received, then the cost per 1,000 of the population was as follows:—

				£	s.	d.
1890	..	..	..	0	16	3
1891	..	..	..	0	12	9
1892	..	..	..	1	10	9
1893	..	..	..	1	17	8
1894	..	..	..	1	4	10
1895	..	..	..	0	11	6
1896	..	..	..	0	11	1

The average annual cost was therefore £1 os. 8½d. per 1,000 of population, or exactly one farthing per head, certainly not an exorbitant price to pay for valuable information. In the above calculation I have included the figures for Loughor and Gowerton 1890-94, when those parishes formed a portion of Llanelly district, otherwise the average cost would have been even smaller.

SMALL-POX.

At the beginning of 1896 small-pox was pretty widely distributed over South Wales, tramps and lodging-houses being largely responsible for the spread of the disease. Recognising that fact, I made inquiries of the police as to the existence of any unregistered common lodging-houses in my division, and learned

that there was one in Teilo-road, Pontardulais, kept by Mrs Frederick Shepherd. Visiting it on the evening of the 17th February, I found six tramps lodging there, but failed to elicit any history of illness amongst any present or past lodgers. Three days later, however, I received a letter from Dr. Davies, the Swansea Medical Officer of Health, stating that a tramping tailor had been received into the Swansea Fever Hospital who had been turned out of Shepherd's lodging-house on the morning of the 17th, covered with the small-pox eruption. Subsequent investigations revealed the following history of the case. The man was of the occasional tramp class. During the fortnight preceding the appearance of the rash, he had travelled over the greater part of Glamorganshire and Carmarthenshire, journeying by train when he was fortunate enough to meet some old friend who gave him money, and walking when funds were low. He may have contracted it in any one of the numerous lodging-houses he slept in. He did a few day's work in a tailoring establishment at Pontyberem, Carmarthenshire, and thence he came to Shepherd's lodging-house on the evening of Saturday, 15th February. On the Sunday he kept bed all day, the rash appearing in the afternoon. On the Monday morning Mrs. Shepherd turned him out, saying she was afraid to keep him longer in his sick condition. Failing to find any one who would give him shelter, or drive him to his home in Swansea, he attempted to walk to that town, but took $3\frac{1}{2}$ hours to cover the $3\frac{1}{2}$ miles between Pontardulais and Gorseinon. There he spent $1\frac{1}{2}$ hours in his sister's house, but, as his sister was dangerously ill at the time, she was unable to give him lodgings. The driver of an oil cart gave him a lift two miles on his way, but whilst dragging himself along the remaining three miles he fell to the ground many times exhausted. Eventually he reached Swansea, and was, the following day, sent to the Fever Hospital, where he made an excellent recovery.

All the clothing and bedding of Shepherd's house were removed, by my directions, to Swansea Fever Hospital, and disinfected there, and the house itself, which was in a filthy condition, was disinfected and cleansed under the superintendence of the inspector. Disinfection of the house he had visited at Gorseinon was also carried out, and all places he had called at were kept under daily observation for a fortnight.

I recommended your Council to institute legal proceedings against Mrs. Shepherd for keeping an unregistered common lodging-house, but your Council did not see fit to act on my suggestion. I also pointed out to you the great importance of having all common lodging-houses registered and properly regulated, and that, by the Public Health Act of 1875, it was obligatory on your Council to frame bye-laws for their proper regulation.

VACCINATION.

Through the kindness of Messrs. G. B. Haynes and J. White (the vaccination officers of the Swansea and Llanelli Unions respectively), I am enabled to give the following statistics :—

	Llandilo- Talybont, Penderry, and Cockett.	Loughor and Gowerton.
No. of children whose births were registered in 1895	538	149
No. of the above successfully vaccinated ..	465	122
„ „ died unvaccinated	57	13
„ „ whose vaccination is post- poned by medical certificate	8	4
No. of the above removed to places known ..	3	8
„ „ removed to places unknown ..	3	2
„ „ not accounted for	2	0

Thus the number not finally accounted for on the 1st January, 1897 (including postponements and removals), was 30 out of 687, or a percentage of 4·4, which, though more than twice as great as that of 1894, still compares favourably with the 16·1 per cent in England and Wales in 1893, the latest year regarding which statistics have been published by the Local Government Board.

SCARLET FEVER.

Thirty-eight cases were notified during 1896, viz.:—11 in Loughor, 11 in Gorseinon, 2 in Penyrheol, 5 in Pontardulais, 3 in Gowerton, 3 in Treboeth, and 3 in Sketty. This is the smallest number notified in any year since the introduction of compulsory notification, except 1891. I regret that, in almost every case the infection was plainly due to visits recklessly paid to infected houses. Thanks to the thoroughness with which the head masters of the various schools in the district carried out my requests for the exclusion of scholars living in infected houses, I am pleased to state that I believe not more than one or two of the 38 cases notified were due to school infection.

MEMBRANOUS CROUP.

One case was notified at Bank-y-Cwm, near Gowerton, and, unfortunately, terminated fatally. The infection was apparently contracted in Devonshire, where the child had been spending a few holidays. Another case, also fatal, occurred two months later in Pontardulais, but its origin is unknown.

TYPHOID FEVER.

Of the 47 cases notified during 1896, only two occurred in the first half of the year. These were sporadic cases, one in Church Street, Gowerton, in January, and one at King's Bridge, Loughor, in February, and no definite statement can be made as to their probable origin.

The remaining 45 cases occurred in the second half of the year, and may be conveniently classified according to locality as

follows :—1st Pentretan, 2nd Waunarlwydd and Mynydd-Bach-y-Glo, 3rd Ystrad Road, 4th Fforest Fach, 5th Cwmbwrla, 6th Travle.

I. The Pentretan series comprised 5 cases. Pentretan is a remote spot on a hillside a few yards from the extreme northern limit of this Division. The earliest patient was a young woman, who returned home ill in the first week of July from domestic service in Carmarthenshire. The case was somewhat obscure, and, prior to a diagnosis being arrived at, the discharges from the patient were thrown, without any disinfection, on the surface of a piece of sloping ground just above a shallow open well, which supplied this and a neighbouring house. On 2nd August, a sister of the first patient was attacked; on the following day the occupier of the second house sickened, and two days later two of his children also fell ill. It is matter for congratulation that all the five patients recovered.

II. In Waunarlwydd and Mynydd-Bach-y-Glo, 22 cases were notified, distributed through 13 houses.

1st house. Mynydd-Bach-y-Glo. One girl taken ill on 27th July, a second on 17th August, and the mother on 24th September. Water supply from Gorse Well, pool on common, pool by Saint Pit, Shepherds' Well, and Felin Fach Well.

2nd house. Mynydd-Bach-y-Glo. One boy taken ill on 1st August, a second on 4th August, and the mother on 6th August. Water supply from pool on common, pool by Saint Pit, Shepherds' Well, and Login Fach Well.

3rd house. Mynydd-Bach-y-Glo. One patient attacked on 1st August, and her husband on the 30th August. Water supply from Gorse Well, pool on common, Login Fach Well, and Ystrad Isaf Well.

4th house. Near "Lamb and Flag." One patient attacked on 1st August. Water supply from pool on common, Caergynydd Fawr Well, and Caergynydd Fach Spout.

5th house. Login. One patient attacked on 10th August. Water supply from pool on common, Caergynydd Fawr Well, etc.

6th house. Springfield Terrace. A young man came home ill with the fever on 24th August, after several months' absence in Llanelly. His brother fell ill on 3rd October.

7th house. Morris's Row. A girl fell ill on 2nd September, and her brother on 18th September. Water supply from pool on common, Caergynydd Fawr Well, Caergynydd Fach Spout, etc.

8th house. Mynydd-Bach-y-Glo. The earliest patient here had been nursing her sister (the first patient of the 3rd house), and sickened herself on the 2nd September. Another sister in the 8th house fell ill on 9th October, and a brother on 25th October. Water supply same as that of 3rd house.

9th house. New Road. One patient attacked on 9th September. Water supply from Caergynydd Fawr Well, Job's Well, etc.

10th house. Commercial Terrace. One patient fell ill on 9th September. She had been visiting her sister-in-law, the patient in the 4th house. Water supply from Caergynydd Fawr Well, etc.

11th house. Morris's Row. Patient attacked on 11th September. Water supply from Caergynydd Fawr Well, Caergynydd Fach Spout, etc.

12th house. New Road. Patient sickened on 14th September. This was the only fatal case in this series. Water supply from Caergynydd Fawr Well, Job's Well, etc.

13th house. Incline Road. Patient attacked on 25th September. Water supply from Caergynydd Fawr Well, Job's Well, etc.

The probability of this Waunarwydd outbreak having been due to contaminated milk is negatived by the following considerations:—

1st.—Most of the patients consumed no milk.

2nd.—The small number who did use milk had no common supply, but obtained it from several sources.

3rd.—No case of typhoid fever or suspicious illness is known to have occurred on any of the farms or dairies supplying this area.

The total absence of drains and sewers from the infected area disposes of the question of sewer gas as an agent for disseminating the fever.

There is no overcrowding of dwelling houses, and each house possesses an exceptionally large garden.

This area had for many years possessed a supply of excellent water from Cwmllywd Springs, and at the beginning of 1894 this supply was extended to Fforest Fach, and Ystrad Road. The supply had always proved sufficient for Waunarwydd before the extension of the water mains, and even since the extension the supply had been sufficient for the enlarged area during 1894, 1895, and the first half of 1896. The severe drought of last summer, however, told so seriously on the yield of the springs, that from 11th July till the third week of September, the quantity of water in the mains was so small that it did not rise to the higher levels, the consequence being that houses on the higher level were deprived of their water supply, and had to content themselves with what could be procured otherwise. Now all the cases in this series, with two exceptions, occurred in houses on the higher level, and the only cases which occurred on the lower levels were two in the 6th house, which are shown by the preceding statement to have been due to infection imported from Llanelly, and to have been quite independent of the general outbreak.

When deprived of the Cwmllyn Water Supply, the people living on the higher levels had recourse to a large number of open wells, pools, etc., without the slightest regard to the purity of the water. One striking feature is the large number of wells made use of in each case, the usual answer to inquiries as to the sources from which infected houses obtained their water supply being, from so and so, and so and so, “and from any place where we could get it.”

In fact, children were sent out to fetch water, and if they found one well or pool empty, they simply passed on to another. When one considers that after the typhoid infection has been contracted, a period of incubation of usually 2 to 3 weeks occurs, during which there are no symptoms of the disease, that a further period of 12 days after the occurrence of symptoms has been found, on an average, to elapse in the town of Leeds before the medical attendant feels himself able to notify the case as one of typhoid fever, it will be readily understood that by the time the Medical Officer of Health and Sanitary Inspector paid their visits, some of the numerous sources of water supply of each house had been forgotten. Were the information regarding the sources of supply of each house complete, the contaminated source or sources could probably be identified, but under the circumstances that is quite impossible.

The well or wells instrumental in spreading the fever may have been contaminated in one of two ways:—First, by the dipping in of vessels to which a small amount of typhoid material was clinging; or, second, by human excreta deposited near the open well. Human fæces were found close to the mouth of every well visited by the inspector and myself.

The starting point of the epidemic was probably some imported case. Possibly it may have been the vague febrile illness from which the father of the earliest patient in the first house suffered at the beginning of July, and which completely

baffled diagnosis on the part of his medical attendant. It is important to remember that, owing to great depression in the coal trade, many Waunarlwydd colliers have been working 30 or 40 miles from home, and these might readily import infection. Since 1892 there have been only three sporadic cases of typhoid fever in this area, and each of those was clearly due to imported infection. The coincidence of the present sudden outbreak with the loss of the usual water supply on the higher levels, and the immunity enjoyed by houses on the lower level, which still possessed the ordinary water supply, is too marked to permit of any doubt that the typhoid fever had been chiefly spread by the agency of water.

Several of the cases, however, seem to have been due to the lack of proper precautions on the part of those coming in contact with the patient, *e.g.*, the second patient in the 7th house probably contracted the fever by carelessly supping jam from the same dish and with the same spoon as his sister had been using, and then licking his fingers in boyish fashion.

III. Ystrad Road. Only one case occurred here, on 24th September, but, unfortunately, it proved fatal. Before the Cwmllwyd water supply was extended to Ystrad Road in 1894, typhoid fever was more or less epidemic there. Being situated on a low level, Ystrad Road was not deprived of its water supply during the recent drought, but the family of the deceased had for several months, for some reason of their own, taken their water supply from Gorse Well, from which many of the infected households at Mynydd-Bach-y-Glo had been obtaining their supply. Why only one patient in this house was infected is not clear; possibly the others owed their immunity to previous attacks, as most of the members of the family had suffered from typhoid fever about eight years ago, and the present patient had not.

IV. Fforest Fach. Here 10 cases occurred, distributed through 5 houses, and 3 terminated fatally.

1st house. First patient fell ill on 31st August, his father on 19th September, and his brother on 6th October. The first two succumbed to the disease.

2nd house. Earliest patient attacked on 3rd September, and his mother on 14th September.

3rd house. One patient only. Date of attack, 4th September.

4th house. Child attacked on 7th September, his mother on 24th September, and his sister on 1st October. The last case proved fatal.

5th house. One patient fell ill on 31st October. She was a first cousin to the patient who took ill on the 24th September in the 4th house, and had been visiting there, washing and eating in the infected house.

The invasion of the first four houses was almost simultaneous, and, with the exception of the single case in the fifth house, it did not spread beyond them.

Dr. Williams, the County Medical Officer, kindly investigated this outbreak along with me, but I have no feasible theory to offer as to the origin of the infection. During the drought, Fforest Fach, being situated on the high level, was deprived of the Cwmllwyd water, and of the five houses all except No. 3 then obtained their supply from Ffynon-y-Waun Spout. Human fæces were pretty liberally deposited on the soil over the pipe leading to the spout, where it is only a few feet below the surface, but a sample of the water forwarded to the public analyst yielded excellent chemical results. If the water were the vehicle of infection, it would be hard to understand why only 4 households were affected of the many using this water.

All the first four houses had a common milk supply, but, apparently, milk was not a vehicle for conveying the fever germs, because : 1st, only $\frac{1}{4}$ -pint per diem was supplied to each of the

infected houses ; 2nd, no cases of typhoid fever occurred among the 150 families using the same milk, except in this small area ; and 3rd, no case of any sort of illness occurred on the dairy farm or amongst the servants during the previous five months, and there is no record of typhoid fever having occurred on that farm since the introduction of compulsory notification in 1889.

During the $2\frac{1}{2}$ years that Fforest Fach had possessed Cwmllywd water, only two cases of typhoid fever occurred there : one, a patient who had simply come home to be nursed through the fever, and the second, the person who nursed him.

There are no sewers in Fforest Fach.

There is no evidence pointing to oysters or other shellfish.

Looking to the fact that the families all lived near each other, and that those in the 3rd and 4th houses were closely related to the family in the 1st house, and that the earliest patients in the 1st and 2nd houses respectively were very close friends, it seems to me very probable that there was an earlier mild, unrecognised and unnotified case of typhoid fever in the person of some mutual friend of the inmates of the four houses.

V. Cwmbwrla. One isolated case occurred here on the 4th September, and the source of infection is doubtful, but the fact that he was a street beggar opens up endless possibilities of infection. The house was in such a filthy state and so much out of repair that I certified it as unfit for human habitation, and it has been closed.

VI. Travle. This is a miscellaneous group scattered over a wide area, and having nothing in common, save that the patients all used water from an open well near Travle Mill, Gowerton. Two of the cases occurred in Elba Terrace, Gowerton ; two in Penclawdd Road, Gowerton, one in Waun Road, Loughor, and one at King's Bridge, near Gorseinon, the two latter patients using the water when at work

in Gowerton. That the well was a vehicle for the virus of typhoid is incapable of proof, especially in view of the fact that none of the inmates of the Travle Mill were affected ; but still, it is quite possible that the well might have been contaminated by a few stray typhoid bacilli from some unknown source. The recognised water supply of Gowerton is supposed to be derived from Cefn Goleu Springs, but the supply is very inadequate, and the public have to supplement it by the use of water from a number of open wells, of which Travle Mill Well is one. Analysis showed the Travle water to be perfectly pure from a chemical standpoint, and steps are now being taken by your Council to erect a pump and protect the well.

Six patients were removed to the Swansea Fever Hospital at my request, and with the consent of their medical attendants. It is satisfactory to record that all six recovered.

CONTINUED FEVER.

One mild and obscure case was notified in Pontardulais, and there is nothing worthy of mention in connection with it.

ERYSIPELAS.

One case of traumatic origin occurred in Gorseinon.

MEASLES.

A considerable number of cases occurred in Waunarlwydd and Fforest Fach in January, and one proved fatal.

WHOOPING COUGH.

Several cases occurred in Fforest Fach and Sketty, and three terminated fatally.

INFLUENZA.

A considerable number of cases occurred in November and December, but they were of a milder type than in former years, and no deaths were recorded.

ISOLATION HOSPITAL.

Communications have recently passed between your Council and the Glamorgan and Swansea County Councils with regard to the question of whether the Swansea Fever Hospital provides sufficient accomodation for the reception of patients from the Borough of Swansea and the Rural District of Llangyfelach. Last summer your Council resolved to build a hospital for your district, and directed your Medical Officers and Surveyor to report on the best site, but since that time you have reversed your decision, and are now endeavouring to arrange with Swansea County Council for the construction of a new joint hospital, or the extension of the existing Swansea Fever Hospital.

DISINFECTING APPARATUS.

There is no disinfecting apparatus in this District, and this is felt to be a serious defect in the sanitary administration, as only in exceptional cases do your officers feel justified in ordering clothes and bedding to be removed to Swansea Fever Hospital for purposes of disinfection.

TABLE VII.—RAINFALL IN 1896.

At Penllergaer, in the Parish of Penderry.

RAIN GAUGE. { Diameter of Funnel, 5 inches.
 { Height of top { Above ground, 3 feet.
 Above sea level, 240 feet.

Month.	Total. Depth.	Greatest Fall in 24 hours.		No. of days on which 0·01 or more fell.
	Inches.	Depth.	Date.	
January	1·79	0·62	24th	12
February	1·25	0·45	8th	8
March	5·25	0·76	7th	26
April	1·30	0·34	13th	10
May	0·10	0·10	21st	1
June	1·50	0·75	16th	6
July	3·56	1·02	24th	11
August	2·87	0·75	18th	12
September ..	8·28	1·45	24th	23
October . ..	5·52	1·14	6th	18
November ..	1·45	0·63	14th	9
December ..	9·27	1·14	1st	26
Total	42·14			162

Average annual rainfall at Penllergaer, 1886-95, 45·44in.
Greatest ,, ,, ,, ,, 61·61in. in 1891
Least ,, ,, ,, ,, 33·54in. in 1887

For the above table I am indebted to the kindness of Sir John T. Dillwyn-Llewelyn, Bart., M.P., D.L.

TABLE VIII.—Statement by Mr. John Thomas, A.M.I.C.E.,
Surveyor to the Llangyfelach Rural District Council, as to

NEW STRUCTURAL WORK,

Carried out during 1895, in the Llandilo-Talybont Division :

- 1st. New Well sunk near Spring Gardens, Gorseinon.
- 2nd. New Well sunk near West Street, Gorseinon.
- 3rd. New Pump, pipes, etc., at High Street Well, Gorseinon.
- 4th. Tube Well driven at Garnlas, Sketty.
- 5th. One new public fountain provided at Sketty, another at Weig,
and a third at King's Head Road, Gendros.
- 6th. Laying two-inch cast-iron pipes at Miller's-row, Grovesend.

Plans were submitted to the Council for the following buildings :—
Dwelling Houses, 52 ; Shops, 1 ; Public Halls, 1 ; Schools, 2 ; Additions, 6.

WATER SUPPLY, SEWERAGE AND DRAINAGE.

The history of the typhoid fever outbreak at Waunarlwydd and Mynydd-Bach-y-Glo during the past year, and the fact that for over two months houses situated on the higher levels were deprived of their ordinary source of water supply, and had to resort to contaminated open wells, proves only too clearly that Cwmllwyd water is not adequate for the supply of Waunarlwydd, Mynydd-Bach-y-Glo, Ystrad Road, and Fforestfach. The necessity of an improved water supply for those places is so obvious that I need not enlarge upon it.

The history of Gowerton also during the past year has fully confirmed what I stated in my former report as to the inadequacy of the CefnGoleu water supply. The yield of the springs was inadequate even when supplemented by the CefnGoleu stream, to which cattle, pigs and ducks are allowed free access a few feet from the intake, and the inhabitants had to resort to open wells liable to pollution.

The water-supply obtained from King's Bridge pump, Loughor, and on which nearly 100 families depend, seemed to me of doubtful quality, and the Inspector forwarded a sample to the Public Analyst at my request. The Analyst's report was as

follows: "The organic purity is good, but the amount of inorganic nitrogen compounds throws some suspicion on the purity of the source. The surroundings should be carefully inspected, and, if at all doubtful, the water would be in my opinion better avoided." In connection with this recommendation, it is to be noted that a sewer constructed by the Parish Council, with puddled clay in the joints instead of cement, and not laid on a bed of concrete, runs within 11 yards of this well.

Gowerton is the only village possessing a system of sewerage, but even that is by no means complete, and there are many grave defects to remedy. As your Council, however, seems intent on pushing on a scheme for the extension and improvement of the present sewers, I need not dilate upon this subject.

The most urgent requirements of this Division are the provision of adequate supplies of pure water for Gorseinon and Pontardulais, and the carrying out of a system of sewerage for Gorseinon, Pontardulais and Sketty. In my former reports I have pointed out in detail the dangers attending the present state of things in those places. To show you that the evils I complained of were acutely felt by my predecessor in office, I purpose on this occasion (more particularly for the information of those members of your Council who were not members of the old Swansea Rural Sanitary Authority) to quote a few passages from Dr. Griffiths' reports. They are perfectly applicable to the present condition of things, as the localities are in precisely the same state now as when those sentences were penned.

Gorseinon.--"The greater prevalence of typhoid in the village of Gorseinon than in any other centre of the District gives strong colour to the view generally entertained that there is something wrong in the sanitary arrangements; or, perhaps more strictly speaking, the absence of any such arrangements. That typhoid does occur here is only what can reasonably be

expected, and it seems to me that the only surprising feature in the matter is that the outbreaks which appeared from time to time were not more malignant in their nature and fatal in their results.

“ Without drainage of a comprehensive kind and a proper scheme of water supply, I cannot see how this village can escape a visitation of epidemic disease of a devastating kind in the near future. With a wholesale condemnation of the sanitary state of the entire village, it would be idle to name in detail the many sanitary defects there. Without a doubt, this is the greatest blot in the sanitary arrangements of the district.

“ In the first month of the year (1893), Dr. Williams, the County Medical Officer, was invited to consult with an appointed Committee of your Authority on the spot as to the most pressing sanitary needs of this village. Dr. Williams drew up a Report embodying his views as to the needs and defects of this village. These consisted of the urgent want of a better water supply, together with a strong condemnation of two out of the four available wells. The pressing need of a comprehensive scheme of drainage was insisted upon. His remarks as to the congenial soil which cholera, and other allied, of what are termed dirt, diseases, would find as breeding grounds, if unhappily, these diseases should ever be introduced, dovetailed completely with the opinion I have consistently maintained and more than once expressed.”

Pontardulais.—Dr. Griffiths reported as follows:—“ The conviction forces itself upon one’s mind that a gravitation scheme must, at no distant date, be carried out for the better supply with water of the two fast increasing villages of Gorseinon and Pontardulais. Sooner or later stern necessity will assert itself, and every consideration of economical ‘make-shifts’ must give way to the hygienic wants of the inhabitants.

“ In places, such as the village of Pontardulais, where the supply of water is obtained from gravelly soil, the source could not but be contaminated with cesspools being on the same plane as the wells. Hence the foul holes are strictly forbidden in this village, either as receptacles of excreta or of slops and waste water.

“ The more experience that one gets of pumps as means of public water supply, the more unsatisfactory they become. The village of Pontardulais is thus supplied, with the result that there exist chronic complaints of failures of supply from one or another of the various pumps. . . . I do, therefore, trust that your Authority will keep in view the necessity of supplying Pontardulais by means of gravitation, so as to dispense with the various private and public pumps.

“ The necessity has arisen, and is daily getting more pressing, that a system of drainage should be established in each of the 5 populous centres in the district.

“ The village of Pontardulais is much in need of this important requisite.

“ In previous reports I have advised the desirableness of surface drainage being established in all the populous centres by the formation of main drains, so that the house drains may empty into them, and not, as at present, the contents to find their way as best they can to some outlet, and in their course operating as nuisances to sight and smell, as well as injurious to the public health. It seems to me illogical to complain of householders allowing their waste and soapy water to run along the natural fall of the ground to find its way into the road drains, when no public provision has been made in the form of main drains. It is necessary for the Authority to perform its own part, and then the householders can reasonably be blamed for neglecting theirs.”

Sketty.—"Sketty, being the only village in the district possessing individual drains, urgently requires a universal scheme.

"The isolated drains of the village terminate for the most parts in cesspools, while some end in the open, over the surface of a field. The former method could not be countenanced in a scheme for the whole village, and the latter could not be procured in a suitable position, as regards elevation, without subjecting it to all the objections inherent to emptying the drains into the stream traversing the valuable lands intervening between the village and the sea. The only alternative, it seems to me, is to acquire permission of the Urban Authority to connect the proposed drainage with their main."

Since Dr. Griffiths wrote the foregoing, no improvement has taken place at Pontardulais or Sketty, unless we regard the drainage of Roseland Terrace, Sketty, into the Tycoch stream as an improvement. In Gorseinon, of the four wells inspected by Dr. Williams, in 1893, the two he condemned, on account of their liability to pollution, are still in use. Of the other two pumps one has been abandoned because the water was so highly charged with iron as to be unfit for use, and the other has been dismantled, after a very checkered history, having been at various times polluted by mischievous or malicious persons casting putrid herrings, dung, and urine into it. The river water is the only source of supply of drinking water for the Gorseinon factories. Last April, a Local Government Board Inquiry was held with regard to the proposal to borrow money for a scheme for providing water from Parc Mawr Springs. This scheme would, probably, have proved fairly adequate for nine or ten years to come, but the scheme has finally fallen through on account of your Council failing to acquire the consent of some of the parties entitled to the use of the water. Since the abandonment of that scheme, two wells have been sunk in the village, one in Llandilo-Talybont

parish and the other at Penderry. The former yields turbid water of the colour of clay, and the Public Analyst, in his report on a sample taken more than two months after the completion of the well, says, "The organic matter is too high for a good water of this class. The sample was very turbid, and did not readily become clear. In its present state, I cannot recommend the water." The well at Penderry supplies water which, though organically pure, is unpalatable.

From the foregoing, it will be seen that improvement of the water supply of this division is a pressing necessity, and I beg to express the hope that a large general scheme for the supply of the whole district may be adopted in preference to a number of small schemes.

DISPOSAL OF REFUSE.

The "pail system" for the disposal of human excrement has been in vogue for many years, and is, no doubt, the best suited for this district. In the selection of scavenging contractors, perhaps a little too much inclination has been shown to accept the lowest tender, regardless of the important consideration as to whether the tenderer is a man who is likely to carry out the contract thoroughly or to scamp his work. Speaking generally, the scavengers attend in a fairly satisfactory manner to the pail closets, but the removal of household refuse is irregular and unsatisfactory, and ought to be improved in the coming year. In my opinion, a scavenging contractor ought to be provided for Loughor Borough and Treboeth.

The following table, furnished by the Inspector of Nuisances shows the work performed by the scavenging contractors during the year, 1896 :—

TABLE IX.—REMOVAL OF REFUSE.

Number of Scavenging District.	Name of Parish.	Name of Locality.	Cesspools Emptied.	Dry Ash Privies Emptied.	Pails or Buckets Emptied.	Ashes Removed.
1	Cockett ..	Sketty, &c...	38	1,415	780	Loads. 179
2	Cockett ..	Station Road, &c. ..	—	984	536	57
3	Ll'ndilo-Talybont	Pontardulais	4	1,224	2,500	125
4	Ll'ndilo-Talybont and Penderry ..	Gorseinon & neighb'rhood	—	298	14,452	247
10	Gowerton ..	Gowerton ..	—	—	11,500	139

FACTORY AND WORKSHOP ACTS.

The 109 workshops of this Division have been kept well under observation during 1896, and, thanks to the thorough inspections of the previous year and the good effects of the cards affixed to the walls of the workrooms at the end of 1895, their general condition has greatly improved as regards cleanliness, lime-washing and ventilation. I received two complaints as to over-crowding, during the past year, from H.M. Inspector of Factories, and, in addition, I have discovered six other cases; in all eight cases. The over-crowding was promptly abated by the provision of larger workrooms.

HOUSES UNFIT FOR HABITATION.

Twenty houses were, during the past year, certified as unfit for human habitation on account of structural defects. Of that number, 2 have been demolished, 5 closed, 5 rendered habitable, 2 are in process of repair, 2 are about to be demolished and

re-built, whilst the owners of the remaining 4 houses have been duly served with notices, requiring them to render the houses fit for habitation, failing which, your Council have decided to apply for closing orders.

In addition, 3 dwelling-houses were reported as being so overcrowded as to be dangerous or injurious to the health of the inmates, and in each case the nuisance has been abated.

CONSTRUCTION OF NEW BUILDINGS.

All plans of new buildings are submitted to your Council for approval, but it is regrettable that no adequate supervision is exercised over the builders, and that several of the most important of your bye-laws are almost totally ignored. The 92nd provides that the person erecting a building must give notice in writing to the Surveyor of the date on which he will proceed to cover up any sewer, or drain, or foundation, and the 96th provides for notice of the completion of the building being sent to the Surveyor, so that he may inspect the house before it is occupied, but I believe those two bye-laws are hardly ever complied with. The 10th specifies that the whole ground surface or site of a new dwelling-house must be properly asphalted or covered with a layer of good cement or Aberthaw lime, concrete, rammed solid at least 6 inches thick, unless the surface is an even surface of solid rock; this bye-law is rarely carried out. The 17th provides for a proper damp course in each wall below the lowest timbers and at least 6 inches above the surface of the ground; this is rarely carried out in a really efficient way. The 26th, requiring the carrying up of party walls to the slates, and prohibiting any lath, timber, or woodwork being extended across any party wall, is usually ignored, and those who witnessed the last fire in Gorseinon know what danger to the public the violation of this bye-law entailed, the timber of the roofs having been continuous from end to end of a row of houses in High Street, whilst the party walls were incomplete.

Even an ash-pit is very seldom provided, though, by the 35th section of the Public Health Act of 1875, such an omission renders the offender liable to a penalty of £20. For reasons stated elsewhere, as to the absence of sewerage arrangements, I do not call your attention to the non-provision of drainage in the case of new buildings.

The 6th section of the Public Health (Water) Act of 1878 declares it illegal for any owner to occupy or permit to be occupied any new dwelling-house in your district until a certificate has been granted by your Council, stating that there is a sufficient available supply of wholesome water within a reasonable distance of the house; the penalty for contravention of this section is £10, but I am not aware that your Council ever sought to enforce it.

Another unsatisfactory feature of the houses erected within the last 10 years is the unduly high proportion of bedrooms with damp walls. A Committee of your Council is now engaged in drafting revised bye-laws for new streets and buildings, and I trust that, if wisely framed and thoroughly enforced, they may effect a marked improvement in the quality of the new buildings in your district.

BYE-LAWS.

The aim of sanitary administration should be the prevention of nuisances, not their abatement after they have actually arisen, and this district can never be in a satisfactory state so long as your Council does not possess a code of Bye-Laws for the regulation of slaughter-houses, offensive trades, houses let in lodgings, and common lodging-houses, and for the prevention of nuisances. For an account of the primitive manner in which the slaughter-houses and offensive trades in this division are carried on, I beg to refer you to my former reports.

BURIAL GROUNDS.

The numerous burial-grounds are all connected with either churches or chapels, and are quite adequate for the present

requirements of the Division as a whole. Loughor Churchyard is now full, and the Rector rarely permits interments except in the case of those whose families possess graves or vaults. There is a proposal to provide a cemetery near King's Bridge to serve for Loughor, Gowerton, and Gorseinon.

SALE OF FOOD AND DRUGS ACTS.

The duties of Inspectors under the above Acts are entrusted to the Superintendents, Inspectors, and Sergeants of Police, and through the kindness of the Chief Constable (Captain Lindsay), and Superintendent Thomas, I am enabled to give the following table of work done in the Llandilo-Talybont division, in the year ending 29th September, 1896.

Name of Article.	No. of Samples submitted to Public Analyst.	Result of Analysis.		No. of Prosecutions.	No. of Convictions.
		Genuine.	Adulterated.		
Milk	17	14	3	3	3
Lard	4	4	..	..	..
Currant Cake.....	2	2	..	..	..
Seed Cake	1	1	..	..	..
Preserved Peas	1	1	..	..	..
Butter.....	1	1	..	..	..
Honey.....	2	2	..	..	..
Tea	1	1	..	..	..
Coffee	2	2	..	..	..
Demerara Sugar	1	1	..	..	..
White Pepper	2	2	..	..	..
Black Pepper.....	1	1	..	..	..
Sweetmeats	1	1	..	..	..
Candied Lemon Peel ..	1	1	..	..	..
Malt Vinegar	2	2	..	..	..
Whisky	2	2	..	..	..
Rum	3	1	2	2	2
Brandy	2	..	2	2	2
Wine	1	1	..	..	..
	47	40	7	7	7

INSPECTION OF MEAT, &c.

Owing to the absence of a public slaughter-house, it is quite impossible for the Inspectors of Nuisances to inspect more than

a very small proportion of animals before slaughter. The inspector directed my attention last summer to a small quantity of meat exposed for sale in a state of incipient putrefaction. As the butcher was removing from the district the following day and agreed to leave the fate of the meat to my decision, I considered that the ends of justice would be fully met by the destruction of the meat ; prosecution, under the circumstances, would have been of little use. As much supervision as possible is exercised over the various hawkers who sell fish, fruit and vegetables.

RIVER POLLUTION.

Most of the rivers and streams in this division are polluted by sewage or by manufacturing or mining effluents, but until a proper system of sewerage is provided, it would be worse than useless to attempt to check the pollution.

SCHOOLS.

I directed your attention to the fact that the health of both teachers and scholars in the Infant Department of the Gorseinon Board School was suffering from the serious over-crowding existing there, the 240 children having only $6\frac{1}{4}$ square feet of floor area each. Your Council then directed me to visit the other elementary schools in this division, ten of which are Board Schools, controlled by 5 School Boards, and 4 are National Schools. I found 67 children in a classroom in the Infant Department of Tirdeunaw Board School, with $4\frac{1}{4}$ square feet of floor area for each. In Sketty National School, 100 children in the Infant Department had an average of $6\frac{1}{4}$ square feet each. In the Infant Department of Penllergaer Board School, 48 children had exactly 7 square feet each. In one classroom of the Mixed Department of the Pontardulais Board School, 65 children were allowed $5\frac{1}{2}$ square feet each. In a classroom of the Mixed Department of Cockett National School, 40 children possessed 5·9 square feet each. In a classroom of the Mixed Department of Cadle Board School, 88 children had exactly

6 square feet each. In the Mixed Departments of both the Penyrheol Board School and the Pontardulais National School, classroom accommodation is deficient, small, ill-ventilated cloak-rooms being used for teaching large classes in.

Attention was also directed to the fact that some of the schools possessed cesspools which had never been emptied since the date of their first construction.

Your Clerk has, by your directions, written to the various School Boards and Managers, pointing out the defects complained of, and requesting that these should be remedied with the least possible delay.

Appended to this report are Tables A and B prescribed by the Local Government Board and Table C required by the Sanitary Committee of the Glamorgan County Council.

I have the honour to be, Gentlemen,

Your obedient Servant,

TRAFFORD MITCHELL, M.D., C.M., D.P.H.

Gorseinon,

12th January, 1897.





TABLE A.—TABLE OF DEATHS during the year 1896, in the Llandilo-Talybont Division of the Llangyfelach Rural District, classified according to Diseases, Ages, and Localities.

NAMES OF LOCALITIES adopted for the purpose of these Statistics.	MORTALITY FROM ALL CAUSES, AT SUBJOINED AGES.								MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.																						
	At all ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.		Small-pox.	Scarlatina.	Diphtheria.	Membranous Croup.	FEVERS.						Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhoea and Dysentery.	Rheumatic Fever.	Phthisis.	Bronchitis, Pneu- monia and Pleurisy.	Heart Disease.	Influenza.	Injuries.	Other Diseases.	Total.
													Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	5													
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
Parish of Llandilo-Taly- bont	86	35	10	3	4	24	10	Under 5	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	15	..	..	..	28	45
								5 upwds.	11	5	4	..	2	19	41
Parish of Penderry	41	13	4	1	2	12	9	Under 5.	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	4	..	..	..	12	17
								5 upwds.	1	2	4	5	..	1	11	24
Parish of Swansea Higher	52	10	10	1	3	21	7	Under 5.	..	..	..	..	..	1	..	..	..	..	..	1	1	..	..	8	..	..	..	9	20	
								5 upwds.	..	..	..	..	3	..	..	..	..	..	..	..	1	..	..	5	7	2	..	2	12	32
Cockett } Swansea Lower	22	6	..	1	..	8	7	Under 5.	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	1	3	..	..	..	1	6
								5 upwds.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	1	..	1	10	16
Loughor Borough	32	9	2	..	4	7	10	Under 5.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	9	11	
								5 upwds.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	5	..	2	10	21
Parish of Gowerton	35	11	6	2	3	9	4	Under 5.	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	4	..	..	..	12	17	
								5 upwds.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	4	3	2	..	..	8	18
Totals	268	84	32	8	16	81	47	Under 5.	..	..	..	2	..	1	..	..	..	..	..	1	3	2	..	..	35	..	..	1	71	116
								5 upwds.	4	1	26	23	19	..	8	70	152

The Subjoined numbers have also to be taken into account in judging of the above records of mortality.

Persons whose names have also to be taken into account in judging of the above records of mortality.																														
Deaths occurring outside the Division among persons belonging thereto.	2	1	..	.	..	..	1	Under 5. 5 upwds.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1		
									..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	
Death occurring within the Division among persons not belonging thereto.	4	1	..	..	..	2	1	Under 5 5 upwds.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	1
									..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	1	3

Area in Acres, 21,313. Population (1891) 17,645. Population estimated to middle of 1896, 20,106. General Death Rate, 13·3 per 1,000 of population estimated to middle of 1896. Infant Death Rate 127 per 1,000 Births registered.

TABLE B.—TABLE OF POPULATION, BIRTHS, AND OF NEW CASES OF INFECTIOUS SICKNESS, coming to the knowledge of the Medical Officer of Health, during the year 1896, in the Llandilo-Talybont Division of the Llangyfelach Rural District ; classified according to Diseases, Ages, and Localities.

NAMES OF LOCALITIES adopted for the purpose of these Statistics.	Population at all Ages.		Registered Births.	Aged under 5 or over 5.	New Cases of Sickness in each Locality, coming to the knowledge of the Medical Officer of Health.													Number of such Cases Removed from their Homes in the several Localities for Treatment in Isolation Hospital.													
	Census, 1891.	Estimated to the middle of 1896.			Small-pox.	Scarlatina.	Diphtheria.	Membranous Croup.	FEVERS.						Cholera.	Erysipelas.				Small-pox.	Scarlatina.	Diphtheria.	Membranous Croup.	FEVERS.						Cholera.	Erysipelas.
									Typhus.	Enteric or Typhoid.	Continued	Relapsing	Puerperal	Typhus										Enteric or Typhoid	Continued	Relapsing	Puerperal				
(a)	(b)	(c)	(d)	(e)	1	2	3	4	5	6	7	8	9	10	11	12	13	1	2	3	4	5	6	7	8	9	10	11			
Parish of Llandilo-Talybont	4634	5561	185	Under 5 5 Upwds.	.. 1	8 10	..	1	2 3	.. 1 1 1			
Parish of Penderry	..	2679	3245	112	Under 5 5 Upwds.	..	1 1	..	..	.. 1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Parish of Cockett	Swansea Higher	4085	4581	132	Under 5 5 Upwds.	..	.. 1	..	..	2 31	..	..	..	..	..	..	..	..	..	..	..	.. 6	..	..	..	..	..
	Swansea Lower	2051	2257	49	Under 5 5 Upwds.	..	1 2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Loughor Borough	..	2064	2198	96	Under 5 5 Upwds.	..	2 9	..	..	.. 3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Parish of Gowerton	..	2132	2264	85	Under 5 5 Upwds.	..	2 1	..	1 ..	.. 5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
TOTALS	..	17645	20106	659	Under 5 5 Upwds.	.. 1	14 24	..	2 ..	.. 43	.. 1	..	..	..	.. 1	..	..	.. 1	..	..	..	..	.. 6	..	..	..	..

The Infectious Disease (Notification) Act was adopted in 1889. The Isolation Hospital is the Swansea Fever Hospital, situated in the County Borough of Swansea.



